Abstract

A case (100), a rotor (200) that is freely rotatably supported in the case (100), and stators (110) for rotating the rotor by magnetic force are provided. The stator (110) contains a core (111) mounted at the outside of the case (100), and a magnetic coil (112) wound around the core (111). An end face of the core (111) constituting a magnetic pole is formed of at least non-laminate ferromagnetic substance, and exposed to the inner surface of the case (100) so as to form a part of the inner wall of the case (100).